

NOTE

First Report of *Amblyomma clypeolatum* Neumann (Acari: Ixodida: Ixodidae) from the Union of Myanmar, with Two New Records from Tortoises

Since World War II, medical acarologists have scoured Southeast Asia, with the result that the tick fauna of this region is relatively well known (Kohls 1957. Studies from the Institute for Medical Research, Federation of Malaya. No. 28: 65–94; Hoogstraal et al. 1972. Bulletin of the British Museum (Natural History), Zoological Series 23: 167–186; Tanskul et al. 1983. Journal of Medical Entomology 20: 330–341). However, opportunities abound to refine our understanding of Indochinese tick distributions and host relationships, as evidenced by recent field work in the Lao People's Democratic Republic (Robbins et al. 1997. Entomological News 108: 60–62). During August 1999, one of us (SGP) visited the Shwe Setaw Wildlife Sanctuary in west-central Myanmar (formerly Burma), where, within a 15-km radius of Letpazan Station (20°11.675N, 94°28.420E), he was able to collect ticks from specimens of the Burmese star tortoise, *Geochelone platynota* (Blyth), and the yellow tortoise, *Indotestudo elongata* (Blyth). *Geochelone platynota* occurs only in northern and central Myanmar (Smith 1931. The fauna of British India, including Ceylon and Burma. Reptilia and Amphibia, vol. 1, Loricata and Testudines. Taylor and Francis, London; Iverson. 1992. A revised checklist with distribution maps of the turtles of the world. Privately printed, Richmond, Indiana) and is considered among the least known of all living tortoises (Groombridge 1982. The International Union for Conservation of Nature and Natural Resources [IUCN] Amphibia-Reptilia red data book, Testudines, Crocodylia, Rhynchocephalia. IUCN, Gland, Switzerland). Populations of *G. platynota* are declining due to over-exploitation, and the species is listed as critically endangered by

the IUCN (Ballie and Groombridge 1996. Red list of threatened animals. IUCN, Gland). *Indotestudo elongata* ranges from Nepal, Bangladesh, northeastern India, and Yunnan and Guangxi Provinces in the People's Republic of China southward through Myanmar, Laos, Thailand, Cambodia and Vietnam to Penang, Malaysia (Ernst and Barbour 1989. Turtles of the world. Smithsonian Institution Press, Washington, D.C.; King and Burke 1989. Crocodylian, tuatara, and turtle species of the world: a taxonomic and geographic reference. Association of Systematics Collections, Washington, D.C.).

Thirteen tick specimens were collected from three *Geochelone platynota* and three *Indotestudo elongata* (Table 1). With the exception of one engorged nymph, which could not be identified to species, all ticks were males of *Amblyomma clypeolatum* Neumann, 1899, a widespread parasite of tortoises, especially the Indian star tortoise, *G. elegans* (Schoepf), in southern Asia (Robinson 1926. Ticks: a monograph of the Ixodoidea. Part IV. The genus *Amblyomma*. Cambridge University Press, London; Sharif 1928. Record of the Indian Museum 30: 217–344), but one hitherto unreported from the Union of Myanmar (Petney and Keirans 1995. Tropical Biomedicine 12: 45–56) or from either of our tortoise species (Frazier and Keirans 1990. Journal of the Bombay Natural History Society 87: 247–249). Ticks from *G. platynota* were located on the carapace (1), plastron (3), hind legs (3, including nymph), and forelegs (3), while those from *I. elongata* were located on the plastron (2) and hind leg (1).

Though the ticks of Myanmar have not been as intensively studied as those of neighboring Thailand (Tanskul et al. 1983)

Table 1. Collections of *Amblyomma clypeolatum* made within 15 km of Letpazan Station, Myanmar, 6–12 August 1999, S. G. Platt.

Tick sex/stage	SGP No.	RML No.	Tortoise sex/stage	Date
5♂, 1N	1L-1R	122844	<i>Geochelone platynota</i> ♀	6 August
3♂	1L-2R	122845	<i>Geochelone platynota</i> ♂	11 August
1♂	1L-3R	122846	<i>Geochelone platynota</i> juvenile	12 August
1♂	1L-3R	122847	<i>Indotestudo elongata</i> ♂	11 August
1♂	1L-4R	122848	<i>Indotestudo elongata</i> ♂	11 August
1♂	1L-5R	122849	<i>Indotestudo elongata</i> ♂	12 August

and Malaysia (Kohls 1957), it is remarkable that *A. clypeolatum* has escaped notice until now. Males of this species possess a unique golden sheen that covers most of the scutum, extending onto the dorsum of the basis capituli, which is particularly striking in alcohol-preserved specimens (Robinson 1926). Moreover, *A. clypeolatum* is one of only two Southeast Asian *Amblyomma* in which a marginal groove is present, clearly limiting all festoons (the other is *A. crenatum* Neumann, 1899, a rare species that has been recorded from *Rhinoceros sondaicus* Desmarest in peninsular Malaysia (Bequaert 1933, Psyche 40: 137–143) and from unknown hosts in Java and Sumatra (Anastos 1950, Entomologica Americana 30(new series): 1–144)).

We have no explanation for the absence of female ticks on our tortoises, but *A. clypeolatum* is so poorly represented in collections (Frazier and Keirans 1990) that no statement can safely be made concerning the prevalence or intensity of parasitization by either sex. Our single nymph is likely *A. clypeolatum*, but the immatures of this spe-

cies have not been described (Camicas et al. 1998, Les tiques du monde (Acarida, Ixodida): nomenclature, stades décrits, hôtes, répartition. ORSTOM, Paris). All six tick collections (RML 122844–122849) have been deposited in the U.S. National Tick Collection, Institute of Arthropodology and Parasitology, Georgia Southern University, Statesboro.

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